

# Folsom Field Maintenance Program

## March

Evergreen tarps are removed and aeration program is started  
Core aerate with 3/4-inch hollow tines on 4-inch spacing in 2 directions - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Topdress with 1/8-inch layer of sand  
Seed worn areas in preparation for spring game  
Mow three to five times per week at 1.25-inch height of cut

## April

Aerate with 3/4-inch hollow tines on 4-inch spacing in 2 directions - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Hand seed after spring game  
Fertilize with increased Phosphorous for seed germination  
Mow three to five times per week at 1.25-inch height of cut

## May

Alter aeration schedule for post event compaction  
Core aerate with 3/4-inch hollow tines on 4-inch spacing in 2 directions - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Mow three to five times per week at 1.25-inch height of cut

## June

Aerate with 3/4-inch hollow tines on 4-inch spacing in 2 directions - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Topdress with 1/8-inch layer of sand  
Increase Potassium to 1 pound for this month to reduce summer stress  
Hand seed with bluegrass after field events  
Mow three to five times per week at 1.25-inch height of cut

## July

Aerate with 3/4-inch hollow tines on 4-inch spacing in 2 directions - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Hand seed with bluegrass after camps  
Mow three to five times per week at 1.25-inch height of cut

## August

Aerate with 3/4-inch hollow tines on 4-inch spacing in 2 directions - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Hand seed with bluegrass after scrimmages  
Mow three to five times per week at 1.25-inch height of cut

## September

Aerate with solid tines  
Broadcast 150 pounds of bluegrass after every aerification  
Sweep after games to remove debris  
Hand seed divots with pre-germinated bluegrass  
Topdress with 1/32-inch layer of sand following games

Iron applications prior to first home game

Mow three to five times per week at 1.25-inch height of cut

## October

Aerate with solid tines in 3 directions  
Broadcast 150 pounds of bluegrass after every aerification  
Turn on heating system to maintain soil temperature of 55 degrees F.  
Sweep after games  
Hand seed with perennial ryegrass after games  
Topdress with 1/32-inch layer of sand following games

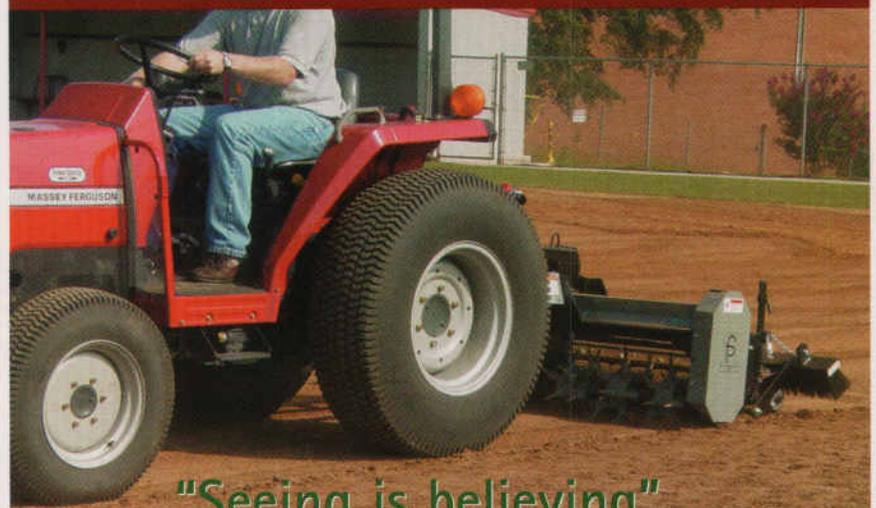
## November/December

Aerate with solid tines in November  
Aerate with 3/4-inch hollow tines in December - remove cores  
Broadcast 150 pounds of bluegrass after every aerification  
Mow as needed at 1.25-inch height of cut  
Sweep after games  
Hand replace divots after last game  
Topdress with 1/32-inch layer of sand following games  
Seed and topdress before putting evergreen tarps on for winter  
Turn off heating system for winter

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# Sports field irrigation

BY JAMES R. WATSON, PH.D.

**W**hether duffer or pro, Little Leaguer or collegiate champion, every athlete wants to play on perfect green grass that is soft and resilient, yet firm enough for good footing. These same athletes also want a field that is tough, wear-resistant and weed-free. Water management is a key component of good field design and maintenance.

Even the heartiest turfgrass can't maintain its growth and resiliency without supplemental watering.

Some fields require more precise watering than others. Fields that sustain intensive play or that support football, soccer and baseball need sand-based soils to ensure good playing surfaces while avoiding soil compaction. But sand-based fields don't hold water or nutrients well and must be watered more frequently with smaller amounts of water. These fields also require smaller amounts of fertilizers applied more often. Fertilizers or nutrients may also be applied through an appropriately designed irrigation system.

Water may be applied to turfgrass in several ways to keep it green and resilient throughout the growing season. Hand watering is an effective way to treat stress areas, but is most useful when used in conjunction with an installed irrigation system.

Another external watering option is the use of sprinklers that pull themselves on a hose or wire-traveling sprinklers. They are largely limited to very small areas of established turf as this method washes away grass seedlings during the grow-in phase. In addition, they require labor to move the equipment to various field areas and must be watched to ensure that they move freely, avoid obstacles and are not subject to vandals.

In cases where soil is heavy or compacted, an automatic system is capable of running multiple cycles to ensure water infiltration into the soils and percolation through the seedbed. Quick-cycling capability also is effective for newly seeded or sodded fields and when turf needs to be syringed to affect evapora-



Photo by Paul Curtis

tive cooling during times of extreme heat and stress. Every field should be equipped with quick coupling valves around the field to allow hand watering or syringing of turf and to provide emergency water.

Water management also includes conservation strategies. Only an automatic irrigation system provides fingertip controls that alter irrigation cycling, which will conserve water and apply it efficiently and uniformly. The system also may include a rain switch to shut off automatic sprinkling during rainfall.

Another consideration when choosing an irrigation method is response time by support personnel. Missed watering cycles because of equipment failure can be a deathblow to athletic turf. When selecting irrigation equipment, it's important to choose a reputable supplier that offers local field support to customers. (See page 16.)

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## 1. EDGE IT

With its adjustable guide shoe, the Bannerman **Diamond Edger** is surprisingly easy-to-use. Its three-inch blade depth and reversible, 20-inch concave disc work together to quickly eliminate ridging. Debris is spiraled into the infield for fast and easy clean-up.



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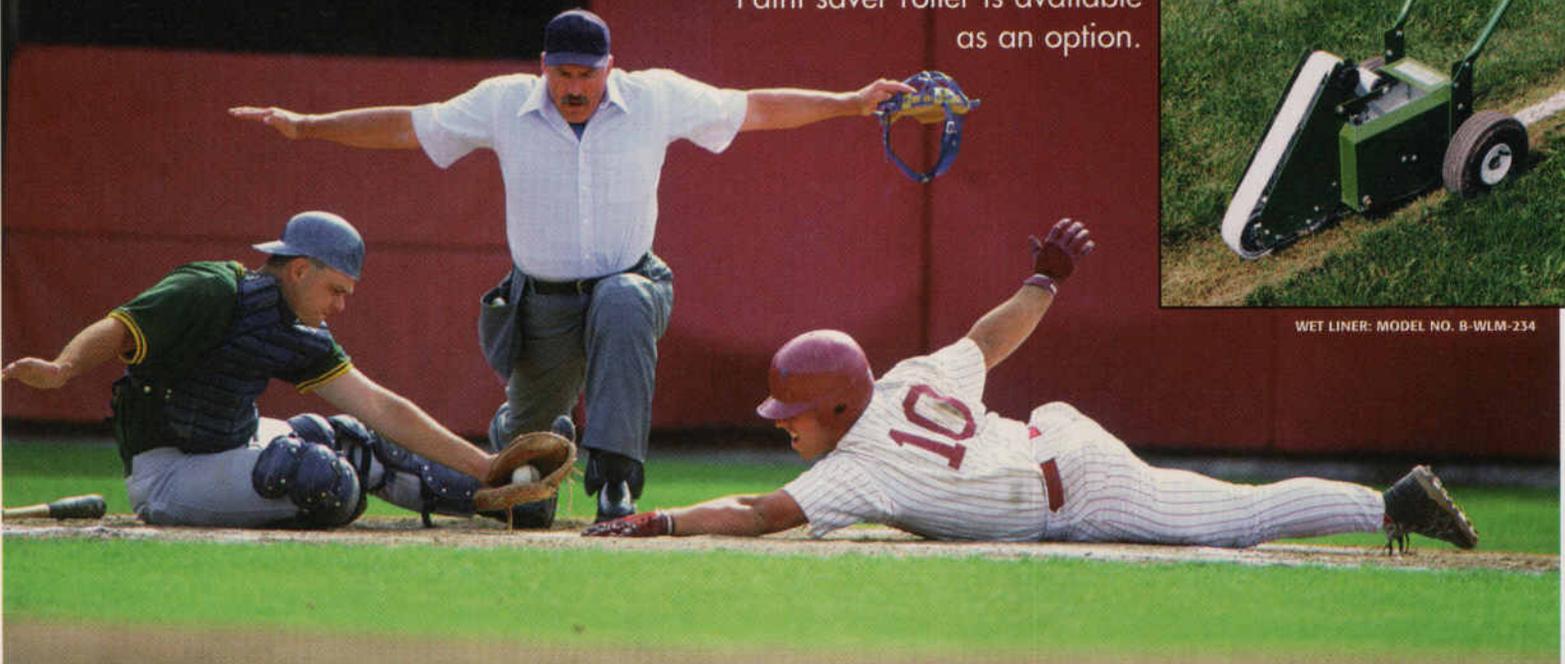
The **Diamond-Master**® (pictured) and **Ballpark-6**® groomers will give your ball diamonds a surface just like the professional teams demand, and reduce the time, effort and labour required to do the job.

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# Warm turf headed for ACC

**I**n January 2003, Advanced Aeration Systems (formerly Soil Air Technology) installed a Turf Warming system for Lane Stadium's Worsham Field, home to Virginia Tech football. The system heats and aerates the Bermudagrass field, which is a warm season grass in Blacksburg's cool season climate. Blowers force air (either heated or ambient) through the drainage system beneath the field, which was constructed in 2001 using GreenTech ITM modules, and then up through the turf. The system was designed to keep the Bermudagrass active through mid-November, to prevent winterkill during cold winter months, and to provide an early green-up in the spring.

The turf warming system can automatically control both the temperature and soil gas composition of the field using Advanced Aeration's patented Subsurface Soil Conditioning technology. Temperature and soil gas sensors embedded within the root zone of the field provide continuous feedback to the system controls. If the field temperature or soil gases are not within their programmed ranges, then the system turns on automatically. When the field reaches the desired temperature or soil gas levels, then the system turns off. Independent research has consistently shown that turfgrass quality decreases when soil gases are outside optimal ranges.

The heaters modulate automatically to maintain a constant heated air tem-



perature to the field, regardless of ambient air temperature. In addition, the system can modulate both the air temperature and flow rate to provide for a constant root zone temperature, even as air temperatures and field moisture levels change.

The system controller is linked via wireless technology to grounds manager Casey Underwood's computer. From his computer, Casey can operate the system and automatically collect system performance and field data, of which the software program can then generate graphs for a visual assessment of the data.

Casey says "This system gives us an excellent tool in the management of Tifsport in our climate. We are able to extend our growing season by a month in the spring and a month in the fall and it gives us protection from winter injury. It

also allows us to exchange root zone gases without aerification and assist Mother Nature in the drying of the field. I have been pleased with the system. It provides greater management flexibility and security."

Virginia Tech also owns a portable electric Advanced Aeration blower, which it purchased in 2001, for suctioning water and air through the field. The portable blower and turf warming system work in concert to regulate field temperature, moisture and soil gases.

Contact Advanced Aeration Systems at 561.625.3301 or via e-mail at [gdalt@advancedaerationsystems.com](mailto:gdalt@advancedaerationsystems.com).

## Budget Basics

**Football Fields:** Focus funds on the end zones and the area between the hash marks. An automatic irrigation system could be installed for the end zone and center areas where turf needs are greatest. An effective drainage system for the entire field remains important.

**Soccer Fields:** Again, the goal area and center of the field are most crucial to play and the hardest to maintain. An automatic irrigation system in these areas maintains a viable field. Soccer fields should be as flat as possible, thus a subsurface drainage system is of great value and worth the investment for a dedicated soccer field.

**Baseball Fields:** Although the turf is in the outfield, the focus on water management for baseball is on the infield. Proper drainage and an automatic irrigation system are essential to managing the skinned areas. The infield requires adequate water to avoid compaction that may lead to injuries. It is important to have clean, sharp edges at the soil/grass interface.

ST

James R. Watson, Ph.D., is vice president and agronomist for The Toro Company and consults with sports field managers around the world.

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## More drainage solutions

Last month, AirField Systems provided 84,000-square feet drainage system for an international soccer event held at Reliant Stadium, home of the Houston Texans. The AirField drainage system, covered with thick cut Bermuda sod, was down for one week, constructed in 2 1/2 days, and then rolled out and removed for future use.

"We can take this system and use it again and again," says Randy Price, sales director of Turfgrass America.

For sports teams, the state of the art drainage system is a blessing.

"We had soccer, softball and baseball tournaments all on the same days in February, all essentially side by side, and

soccer, because of its drainage system on the field, was played while the other two were cancelled by weather," Texas A & M Director of Athletics Bill Byrne said of his women's soccer field, recently renovated with the AirField system.

The main difference between the old and new playing fields is not what's on the surface, but what's under it, A & M officials said. Using the AirField design, the sand-based field complete with a highly efficient drainage system is capable of handling over 3 inches of rain per hour.

For more information, contact Airfield Systems at [www.airfieldsystems.com](http://www.airfieldsystems.com) or 888-287-9657.



### BATTERY-POWERED VALVE SYSTEM

Hunter Industries has released a new battery-powered wireless valve system for sites that do not have access to electrical power. The WVC does not require electrical connections, and is available as sealed 2-station or 4-station units. Each WVC (with antenna) can be installed to irrigation valves in minutes without special tools.

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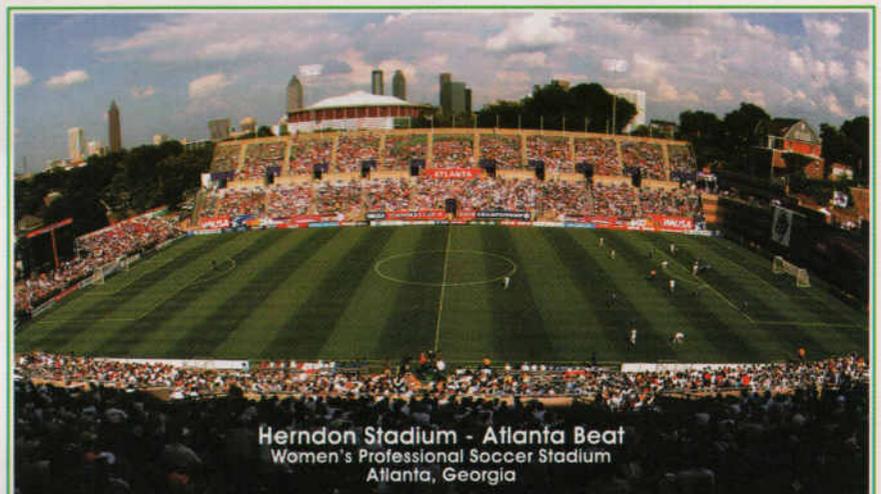
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# Fielder's Choice

It's hard to go wrong when you're choosing between two new warm-season turfgrass varieties as outstanding as SeaIsle 1 Seashore Paspalum and TifSport Bermudagrass. These two new patented cultivars can only be sold as certified sod or sprigs, and only by a member of a select group of licensed growers. Our top-quality producers have agreed to a stringent set of production practices. This means the grass you buy from a Florida, Georgia or South Carolina grower is going to be the same grass you buy from a Texas or California grower. And it'll be the same 10 years down the road. If you're involved with the installation or on-going maintenance of a sports field, you'll really appreciate how these turfgrasses compare to Tifway 419 and the other older varieties in use today.

While SeaIsle 1 is similar in texture and wear tolerance to hybrid bermudas, it may offer a number of important advantages. First and foremost, it can handle multiple stresses: prolonged drought, high salt levels, waterlogging and extremely high or low soil pH levels. Secondly, SeaIsle 1 can tolerate most types of alternate water sources, including wastewater, effluent, gray water, brackish, and even ocean water blends. It requires less irrigating, less fertilizer and only minimal pesticide applications when compared to other warm-season cultivars. It also handles cloudy conditions and the low light intensity of domed stadiums extremely well. That's why it was such a good choice for the Houston Astros' new field. Take a look at its pluses and specify SeaIsle 1 for your new sports field or renovation project.

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Looking for a bermudagrass that can stand up to the stress and demands of big-time sports, to the wear and tear of football and soccer cleats, to the punishment of baseball slides, dives and spikes? Relax; you've found it. TifSport has outstanding color, disease resistance and cold hardiness, too. In fact, TifSport is performing with flying colors as far north as FedEx Field in Landover, Maryland. It's also the Houston Texans choice for their new retractable roof Reliant Stadium. If you're a sports turf manager, you know what's important for a playing field - outstanding density, turf strength and turf quality. You need a grass that recovers quickly from day-in-and-day-out abuse. And that's just what TifSport has been bred to do. Be sure to ask for TifSport certified bermudagrass by name.

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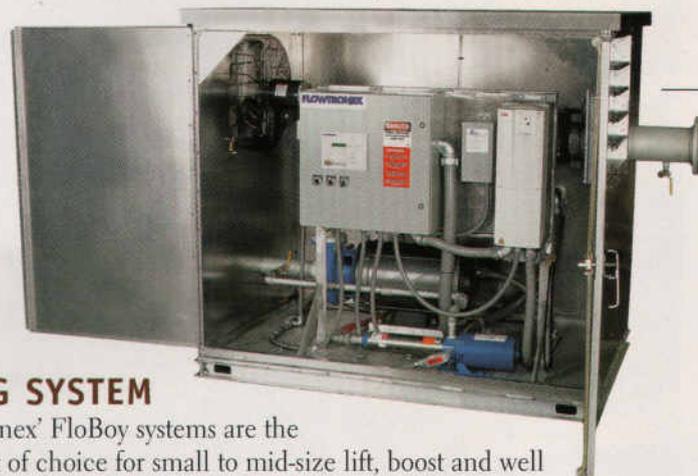
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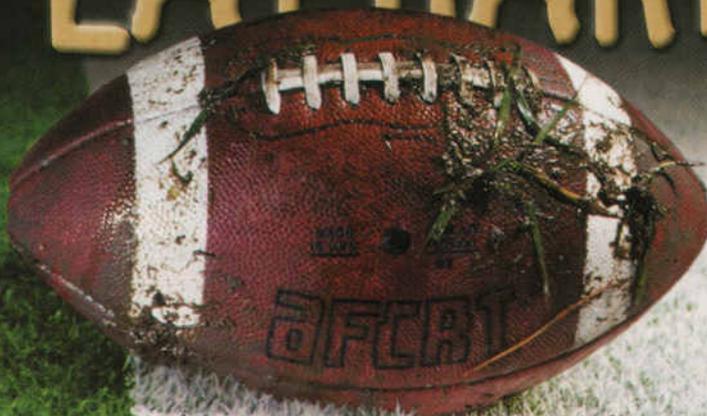


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